RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _O9/5l8, 297B_

Source: _1Fw/16_

Date Processed by STIC: _4/14/05_

ENTERED

IFW16

RAW SEQUENCE LISTING   DATE: 04/14/2005
PATENT APPLICATION: US/09/518,297B   TIME: 13:57:32

Input Set : A:\54600-8130.US00-SEQLIST.TXT
Output Set: N:\CRF4\04142005\I518297B.raw

```
 4 <110> APPLICANT: Lim, Moon Young
 5        Edwards, Cynthia A.
 6        Fry, Kirk E.
 7        Bruice, Thomas W.
 8        Starr, Douglas B.
 9        Laurance, Megan E.
10        Kwok, Yan
13 <120> TITLE OF INVENTION: DNA Binding Compound-Mediated Molecular
14        Switch System
16 <130> FILE REFERENCE: 4600-0130.30
18 <140> CURRENT APPLICATION NUMBER: US 09/518,297B
19 <141> CURRENT FILING DATE: 2000-03-03
21 <150> PRIOR APPLICATION NUMBER: US 60/122,513
22 <151> PRIOR FILING DATE: 1999-03-03
24 <150> PRIOR APPLICATION NUMBER: US 60/154,605
25 <151> PRIOR FILING DATE: 1999-09-17
27 <160> NUMBER OF SEQ ID NOS: 77
29 <170> SOFTWARE: FastSEQ for Windows Version 4.0
31 <210> SEQ ID NO: 1
32 <211> LENGTH: 11
33 <212> TYPE: DNA
34 <213> ORGANISM: Artificial Sequence
36 <220> FEATURE:
37 <223> OTHER INFORMATION: DNA response element
39 <400> SEQUENCE: 1
40 cgttcgcact t                                                    11
42 <210> SEQ ID NO: 2
43 <211> LENGTH: 17
44 <212> TYPE: DNA
45 <213> ORGANISM: Artificial Sequence
47 <220> FEATURE:
48 <223> OTHER INFORMATION: DNA response element
50 <400> SEQUENCE: 2
51 cggagtactg tcctccg                                              17
53 <210> SEQ ID NO: 3
54 <211> LENGTH: 12
55 <212> TYPE: DNA
56 <213> ORGANISM: Artificial Sequence
58 <220> FEATURE:
59 <223> OTHER INFORMATION: DNA response element
```
W--> 61 <221> **NAME/KEY: misc_feature**
```
62 <222> LOCATION: (1)...(12)
63 <223> OTHER INFORMATION: n = A,T,C or G
```

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W--> 65 <400> 3
W--> 66 taattanggg ng   12
     68 <210> SEQ ID NO: 4
     69 <211> LENGTH: 551
     70 <212> TYPE: PRT
     71 <213> ORGANISM: Homo sapiens
     73 <220> FEATURE:
     74 <221> NAME/KEY: VARIANT
     75 <222> LOCATION: (0)...(0)
     76 <223> OTHER INFORMATION: transcriptional regulatory protein
     78 <400> SEQUENCE: 4
     79 Met Asp Glu Leu Phe Pro Leu Ile Phe Pro Ala Glu Pro Ala Gln Ala
     80 1   5   10   15
     81 Ser Gly Pro Tyr Val Glu Ile Ile Glu Gln Pro Lys Gln Arg Gly Met
     82   20   25   ·   30
     83 Arg Phe Arg Tyr Lys Cys Glu. Gly Arg Ser Ala Gly Ser Ile Pro Gly
     84   35   40   45
     85 Glu Arg Ser Thr Asp Thr Thr Lys Thr His Pro Thr Ile Lys Ile Asn
     86   50   55   60
     87 Gly Tyr Thr Gly Pro Gly Thr Val Arg Ile Ser Leu Val Thr Lys Asp
     88 65   70   75   80
     89 Pro Pro His Arg Pro His Pro His Glu Leu Val Gly Lys Asp Cys Arg
     90   85   90   95
     91 Asp Gly Phe Tyr Glu Ala Glu Leu Cys Pro Asp Arg Cys Ile His Ser
     92   100   105   110
     93 Phe Gln Asn Leu Gly Ile Gln Cys Val Lys Lys Arg Asp Leu Glu Gln
     94   115   120   125
     95 Ala Ile Ser Gln Arg Ile Gln Thr Asn Asn Asn Pro Phe Gln Val Pro
     96   130   135   140
     97 Ile Glu Glu Gln Arg Gly Asp Tyr Asp Leu Asn Ala Val Arg Leu Cys
     98 145   150   155   160
     99 Phe Gln Val Thr Val. Arg Asp Pro Ser Gly Arg Pro Leu Arg Leu Pro
    100   165   170   175
    101 Pro Val Leu Pro His Pro Ile Phe Asp Asn Arg Ala Pro Asn Thr Ala
    102   180   185   190
    103 Glu Leu Lys Ile Cys Arg Val Asn Arg Asn Ser Gly Ser Cys Leu Gly
    104   195   200   205
    105 Gly Asp Glu Ile Phe Leu Leu Cys Asp Lys Val Gln Lys Glu Asp Ile
    106   210   215   220
    107 Glu Val Tyr Phe Thr Gly Pro Gly Trp Glu Ala Arg Gly Ser Phe Ser
    108 225   230   235   240
    109 Gln Ala Asp Val His Arg Gln Val Ala Ile Val Phe Arg Thr Pro Pro
    110   245   250   255
    111 Tyr Ala Asp Pro Ser Leu Gln Ala Pro Val Arg Val Ser Met Gln Leu
    112   260   265   270
    113 Arg Arg Pro Ser Asp Arg Glu Leu Ser Glu Pro Met Glu Phe Gln Tyr
    114   275   280   285
    115 Leu Pro Asp Thr Asp Asp Arg His Arg Ile Glu Glu Lys Arg Lys Arg
    116   290   295   300

```
117 Thr Tyr Glu Thr Phe Lys Ser Ile Met Lys Lys Ser Pro Phe Ser Gly
118 305             310             315                 320
119 Pro Thr Asp Pro Arg Pro Pro Arg Arg Ile Ala Val Pro Ser Arg
120             325             330                 335
121 Ser Ser Ala Ser Val Pro Lys Pro Ala Pro Gln Pro Tyr Pro Phe Thr
122         340             345             350
123 Ser Ser Leu Ser Thr Ile Asn Tyr Asp Glu Phe Pro Thr Met Val Phe
124         355             360             365
125 Pro Ser Gly Gln Ile Ser Gln Ala Ser Ala Leu Ala Pro Ala Pro Pro
126     370             375             380
127 Gln Val Leu Pro Gln Ala Pro Ala Pro Ala Pro Ala Pro Ala Met Val
128 385             390             395                 400
129 Ser Ala Leu Ala Gln Ala Pro Ala Pro Val Pro Val Leu Ala Pro Gly
130         405             410             415
131 Pro Pro Gln Ala Val Ala Pro Pro Ala Pro Lys Pro Thr Gln Ala Gly
132         420             425             430
133 Glu Gly Thr Leu Ser Glu Ala Leu Leu Gln Leu Gln Phe Asp Asp Glu
134         435             440             445
135 Asp Leu Gly Ala Leu Leu Gly Asn Ser Thr Asp Pro Ala Val Phe Thr
136     450             455             460
137 Asp Leu Ala Ser Val Asp Asn Ser Glu Phe Gln Gln Leu Leu Asn Gln
138 465             470             475                 480
139 Gly Ile Pro Val Ala Pro His Thr Thr Glu Pro Met Leu Met Glu Tyr
140             485             490             495
141 Pro Glu Ala Ile Thr Arg Leu Val Thr Gly Ala Gln Arg Pro Pro Asp
142         500             505             510
143 Pro Ala Pro Ala Pro Leu Gly Ala Pro Gly Leu Pro Asn Gly Leu Leu
144         515             520             525
145 Ser Gly Asp Glu Asp Phe Ser Ser Ile Ala Asp Met Asp Phe Ser Ala.
146     530             535             540
147 Leu Leu Ser Gln Ile Ser Ser
148 545                 550
150 <210> SEQ ID NO: 5
151 <211> LENGTH: 19
152 <212> TYPE: DNA
153 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: DNA response element
158 <400> SEQUENCE: 5
159 tccctatcag tgatagaga                                        19
161 <210> SEQ ID NO: 6
162 <211> LENGTH: 22
163 <212> TYPE: DNA
164 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: response element
169 <400> SEQUENCE: 6
170 cttaacactc gcgagtgtta ag                                    22
172 <210> SEQ ID NO: 7
```

```
        173 <211> LENGTH: 13
        174 <212> TYPE: DNA
        175 <213> ORGANISM: Artificial Sequence
        177 <220> FEATURE:
        178 <223> OTHER INFORMATION: response element
W-->    180 <221> NAME/KEY: misc_feature
        181 <222> LOCATION: (3)...(3)
        182 <223> OTHER INFORMATION: n = G or T
W-->    184 <221> misc_feature
        185 <222> LOCATION: (7)...(7)
        186 <223> OTHER INFORMATION: n = A,T,C or G
W-->    188 <221> misc_feature
        189 <222> LOCATION: (12)...(12)
        190 <223> OTHER INFORMATION: n = A or C
W-->    192 <400> 7
W-->    193 rgntcantga cny                                          13
        195 <210> SEQ ID NO: 8
        196 <211> LENGTH: 77
        197 <212> TYPE: PRT
        198 <213> ORGANISM: Artificial Sequence
        200 <220> FEATURE:
        201 <223> OTHER INFORMATION: activator sequence
        203 <400> SEQUENCE: 8
        204 Ala Pro Pro Thr Asp Val Ser Leu Gly Asp Glu Leu His Leu Asp Gly
        205  1               5                  10                  15
        206 Glu Asp Val Ala Met Ala His Ala Asp Ala Leu Asp Asp Phe Asp Leu
        207             20                  25                  30
        208 Asp Met Leu Gly Asp Gly Asp Ser Pro Gly Pro Gly Phe Thr Pro His
        209             35                  40                  45
        210 Asp Ser Ala Pro Tyr Gly Ala Leu Asp Met Ala Asp Phe Glu Phe Glu
        211      50                  55                  60
        212 Gln Met Phe Thr Asp Ala Leu Gly Ile Asp Glu Tyr Gly
        213 65                  70                  75
        215 <210> SEQ ID NO: 9
        216 <211> LENGTH: 11
        217 <212> TYPE: PRT
        218 <213> ORGANISM: Artificial Sequence
        220 <220> FEATURE:
        221 <223> OTHER INFORMATION: activator sequence
W-->    223 <221> NAME/KEY: VARIANT
        224 <222> LOCATION: (1)...(11)
        225 <223> OTHER INFORMATION: tetramer
W-->    227 <400> 9
        228 Asp Ala Leu Asp Asp Phe Asp Leu Asp Met Leu
        229  1               5                  10
        231 <210> SEQ ID NO: 10
        232 <211> LENGTH: 97
        233 <212> TYPE: PRT
        234 <213> ORGANISM: Artificial Sequence
```

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Input Set : A:\54600-8130.US00-SEQLIST.TXT
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236 <220> FEATURE:
237 <223> OTHER INFORMATION: repressor sequence
239 <400> SEQUENCE: 10
240 Met Asp Ala Lys Ser Leu Thr Ala Trp Ser Arg Thr Leu Val Thr Phe
241 1   5   10   15
242 Lys Asp Val Phe Val Asp Phe Thr Arg Glu Glu Trp Lys Leu Leu Asp
243   20   25   30
244 Thr Ala Gln Gln Ile Val Tyr Arg Asn Val Met Leu Glu Asn Tyr Lys
245   35   40   45
246 Asn Leu Val Ser Leu Gly Tyr Gln Leu Thr Lys Pro Asp Val Ile Leu
247   50   55   60
248 Arg Leu Glu Lys Gly Glu Glu Pro Trp Leu Val Glu Arg Glu Ile His
249 65   70   75   80
250 Gln Glu Thr His Pro Asp Ser Glu Thr Ala Phe Glu Ile Lys Ser Ser
251   85   90   95
252 Val
255 <210> SEQ ID NO: 11
256 <211> LENGTH: 36
257 <212> TYPE: PRT
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: repressor sequence
263 <400> SEQUENCE: 11
264 Met Ala Ala Ala Val Arg Met Asn Ile Gln Met Leu Leu Glu Ala Ala
265 1   5   10   15
266 Asp Tyr Leu Glu Arg Arg Glu Arg Glu Ala Glu His Gly Tyr Ala Ser
267   20   25   30
268 Met Leu Pro Tyr
269   35
271 <210> SEQ ID NO: 12
272 <211> LENGTH: 116
273 <212> TYPE: DNA
274 <213> ORGANISM: Escherichia coli
276 <220> FEATURE:
277 <221> NAME/KEY: misc_feature
278 <222> LOCATION: (0)...(0)
279 <223> OTHER INFORMATION: partial promoter sequence
281 <400> SEQUENCE: 12
282 cgcggtcaga aaattatttt aaatttcctc ttgtcaggcc ggaataactc cctataatgc   60
283 gccaccactg acacggaaca acggcaaaca cgccgccggg tcagcggggt tctcct   116
285 <210> SEQ ID NO: 13
286 <211> LENGTH: 22
287 <212> TYPE: DNA
288 <213> ORGANISM: Escherichia coli
290 <220> FEATURE:
291 <221> NAME/KEY: misc_feature
292 <222> LOCATION: (0)...(0)
293 <223> OTHER INFORMATION: partial promoter sequence
295 <400> SEQUENCE: 13

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 04/14/2005
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Please Note:
**Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.**

Seq#:3; N Pos. 7,11
Seq#:7; N Pos. 3,8,12

VERIFICATION SUMMARY   DATE: 04/14/2005
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```
L:61  M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:65  M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3
L:66  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:180 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:184 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:188 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:192 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:223 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:227 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9
```